

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Anderson on 09 September, 2009.

The application has been amended as follows:

Claim 11, line 7, replace "another" with --other--. The line should read "and cross-linking, and forming at least one other such layer".

Claim 14, last line, replace "another" with --other--. The line should read "least one other such layer".

## **DETAILED ACTION**

### ***Response to Amendment***

2. This Office action is in response to Applicant's amendment filed 27 August 2009, which cancels claim 13 and amends claims 11, 16, 21, and 25.

Claims 3, 6, 7, 9-11, 14-16, and 18-25 are pending.

3. The objection to claim 11 in the Office Action mailed 09 June 2009 is withdrawn due to applicants amending of the claim in the reply filed 27 August 2009.

4. The rejection of under 35 U.S.C. 112, second paragraph of claims 3, 6, 7, 9-11, 13-16, and 18-25, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is overcome due to applicant's amending of the claims in the reply filed 27 August 2009.

### ***Allowable Subject Matter***

5. Claims 3, 6, 7, 9-11, 14-16, and 18-25 are allowed.

6. The following is an examiner's statement of reasons for allowance:

While the prior art, Woo et al. (US 6,309,763 B1) and Yu et al. (US 5,055,366), teach polymers with various functionalities including hole transporting, electron transporting, and light-emitting and also teaches copolymers of carbazole, fluorene, and arylamine, the prior art does not teach or suggest the polymer (cross-linked composite) as presently claimed. The present polymer contains boron group condensed into

boroxine rings as a part of the polymer chain. The boron is not eliminated during chain formation like in the Suzuki coupling reaction used by Woo et al.

The prior art, Anderson et al. (US 2003/0072943 A1), does disclose that boronic acid or boronates can be incorporated into a polymer, however the reference does not teach the polymer to cross-link forming boroxine rings as presently claimed. The reference also does not teach or suggest the suitability of boron cross-linking groups in functional polymers as claimed.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL WILSON whose telephone number is (571) 270-3882. The examiner can normally be reached on Monday-Thursday, 7:30-5:00PM EST, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/  
Supervisory Patent Examiner, Art Unit 1794

MHW